

## Project Managers' Advisory Group

### MINUTES August 16, 2010

#### Attending:

( \* = by phone )

Bob Giannuzzi	EPMO
Kathy Bromead	EPMO
Janet Stewart	EPMO
Jesus Lopez	EPMO
Gaye Mays*	EPMO
Lucy Cornelius	DPI
Beau Garcia*	DOI
Betty Cogswell	DHHS DHSR
Caroline Jackson	DHHS DPH
Barbara Swartz*	DHHS DPH
Ellen Zimmerman*	DHHS DPH
Deanna Perry*	DHHS DIRM
Gary Lapio*	DHHS DIRM
Tory Russo*	DHHS DIRM
Colleen McCarthy*	DHHS DIRM
Kelly West*	ITS
Cheryl Ritter*	DOT
Lawrence Sanders*	ESC
David Johnson*	DENR
Lloyd Smolinsky*	Dept. of Corrections
Chris Cline*	NCCCS

Bob Giannuzzi welcomed everyone to the meeting. Betty Cogswell was introduced as a first time attendee.

Bob solicited and received approval of the July minutes.

Jesus Lopez presented Betty Cogswell a congratulatory letter from the SCIO in recognition of her passing the PMP exam.

Jesus reported that Cycle 11 of the PMP Exam Prep class will commence in October. About 50 candidates across 13 agencies have shown interest. Selection will be based on meeting PMI qualifications to take the exam, current PM related work assignments, and distribution across agencies. Bob suggested that recent participants in the program who passed the exam offer their Rita Mulcahy used books at a fair price to incoming students. On a sad note, Kathy Bromead advised that Rita recently passed away after a long illness.

Bob reported on upcoming NCPMI programs as follows. He also reminded the group of free PDU opportunities via webinars offered to PMI members through their Communities of Practice.

NCPMI Venue	Speaker	Date/Topic
2010 Annual Event		<u>September 27 (8:15)</u> Being Indispensible
General Membership	Tim Peek	<u>August 19 (6:00 PM)</u> An Overview of Agile Development Practices
Public Sector LIG		No meeting in September
PMO Committee	June Merlino	<u>August 25 (5:30)</u> Career Search & Management - Be in the "Know How To" Zone
Leadership Committee		No meeting in September
Information Systems Committee		No meeting in August

The progress of the EPMO work groups was discussed next.

- **SDLC** to address integration of alternate SDLCs (e.g., Agile) into the current process/workflow. Gaye Mays and Beau Garcia (Chair) reported that at the last meeting, examples of Agile projects from various agencies were reviewed. The final draft of the group's charter is under review.
- **Agency Procurement** to develop a common (within agency) procurement process. Kathy Bromeard and Lucy Cornelius advised that the team has been working on four documents:
  - RFP process in agency (modeled after DPI)
  - How to craft a good RFP
  - Evaluation criteria and execution
  - End – end process with roles and responsibilities
The latter two are to be reviewed w/Patti Bowers. Caroline Jackson recommended that the group review the DHHS process.

Janet Stewart summarized Methodology Task Group activities. Referring to the July Newsletter on the EPMO website, Project Approval Workflows have been updated for >\$500K (Version 4.1) and Registrations (Version 1.5). Recent revisions to the gate checklists and the closeout process (no new templates yet) are also highlighted. Janet added that the group is working on documentation relative to sponsor's approval of User Acceptance Criteria prior to Implementation.

Janet reported that a dry run of a CR training module will be presented to an agency in September. It will be delivered to the masses in October. Project Status Reporting training will be given some time in 4Q10.

For other news on the EPMO website, Janet referred to the *Hot Topics* section on the Home page.

Kathy reported on the PPM hardware refresh activity. Testing of the production environment is in progress. Performance appears to be about the same as the current system. A small VM

server for user testing of reporting services module was to be available 8/25. After the refresh is completed, older completed/canceled projects will be archived. An expansion budget request for a new PPM tool will be submitted.

Lessons Learned from a recently closed project are included in the Appendix.

Meeting adjourned at 3:45 PM.

#### NEXT MEETING

Monday, September 20, 2010  
333 Six Forks Road Conference Room 1 or (919)981-5520

**<https://its.ncgovconnect.com/r96139571/>**

# APPENDIX

## Lessons Learned Documentation

### Exhibit A

### DPI - Grade 7 Online Writing

#### Initiation Phase:

Topic	Lessons Learned
1. Other	Be aware of changing agency and state documentation and procedural requirements

#### Planning & Design Phase:

Topic	Lessons Learned
1. ETS System Design Document	The customer, vendor, agency and ETS goals for architecture must be understood and aligned. Resolving conflicts within the gate approval process can lead to significant project schedule impacts.

#### Execution & Build Phase:

Topic	Lessons Learned
1. Managing Customer Expectations	Communication about purpose, logistics and implementation can be improved.
2. Vendor Management / Vendor Performance / Vendor Deliverables	NCSU Center of Urban Affairs TOPS is more a partner than a vendor. In this effort, TOPS went the extra mile in meeting any requirement while staying within budget and schedule. This was without having a detailed work scope in the contract. The value received far exceeds what could have been achieved through an external vendor.
3. Testing (test execution, verification & validation, test scripts, test cases)	Some survey responders requested additional training and information about how to teach content writing and how to seamlessly integrate the writing system in the curriculum.

#### Implementation Phase:

Topic	Lessons Learned
1. Managing Customer Expectations	The purpose of the System was not always clear to LEAs. Consequently, LEAs have implemented the System in ways other than how it was intended. In many cases, this has taken the form of treating the assignments more as tightly controlled standardized assessments than as authentic, classroom writing assignments.
2. Production Readiness (software / hardware, process, personnel)	Teachers articulated dissatisfaction with the time involved in scoring the on-demand tasks and content assignments, especially before they reached proficiency with the rubrics.
3. Training (user, admin, etc)	School personnel have expressed concern about the amount of time devoted to the System. Many have suggested that it monopolized instruction time and/or required

	<p>reorganization of the curriculum.</p> <p>Teachers expressed unease about the clarity of the rubrics and preparedness to score the assignments.</p> <p>Those responsible for scoring requested more information and examples of scoring, especially for content assignments.</p>
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### General Comments:

Topic	Lessons Learned
1. Computer Access	<p>LEAs articulated difficulty arranging computer access for writing.</p> <p>LEAs expressed concern about monopolizing computers, scheduling conflicts and student preparedness for writing on the computer.</p>

## Exhibit B

### DOT - TRS System Software Upgrade

#### Initiation Phase:

Topic	Lessons Learned
1. Business Case / Project Charter	Building the business case via IT created friction between the DMV business owner. The best approach is difficult to determine since the business owner has a history of not allowing tool upgrades to the software.
2. Level 1 Budget	<ul style="list-style-type: none"> <li>Using an existing Vendor expired quote as an estimate for the funds needed resulted in an inaccurate cost estimate for the procurement of VisiBroker.</li> <li>Determining the estimated time and hours was at risk since the proof of concept had not been done for the coding changes that would be needed to bring the coding up to the latest Java version and the changes that were going to be required for VisiBroker and the implementation of VisiSecure.</li> </ul>
3. Benefits	Benefit calculation was done using input from the business owner.
4. Procurement Plan (procurement strategy....build vs. buy)	Obtaining procurement funds was the most difficult since the original estimate was lower than expected based on an expired quote. TSU funded the procurement of VisiBroker, VisiSecure purchase and DOT-IT funded the maintenance.
5. Project Approval Process	Project approval worked best through the business owners.
6. Managing Sponsor Expectations	Monthly TRS Steering Committee meeting where both business owners are present made keeping the business owners informed every 2 weeks of the status and what was occurring in the project.
7. Managing Customer Expectations	The scheduling of the project and the effect on other work that the business owners needed was handled through discussion at TRS Steering Committee meetings and through the effort of the Contract Manager to minimize the disruptions for production and user support.
8. Other	Setting up the SAP tool to assist in the capturing of information for PPM was a learning experience and needed assistance from others in setting up SAP.

#### Planning & Design Phase:

Topic	Lessons Learned
1. Updated Business Case	The business case for completing the project went through the DOT priority for project which provides management support for the project before the planning and work is initiated.
2. Updated Budget	Budget funds were based on the Team time and state allocations already in place. This made the task of estimating the work effort easier and for providing a realistic project cost
3. Updated Benefits	This was eased by input from the Traffic Safety Unit's input on annual benefits received for the TEAAS application using Crash data.

4. Updated Procurement Plan	The lesson learned in the Procurement Plan was to avoid using an out of date estimate for estimating the funds needed to upgrade the VisiBroker tool. Not enough money was available requiring additional funding to be sought which put the project at risk of not going forward.
5. Project Approval Process	The PM was assigned a mentor for the project since it was the PM's first PPM managed project. This help at each step and phase of the project.
6. Managing Sponsor Expectations	<ul style="list-style-type: none"> <li>The sponsor was kept informed through the business owners.</li> </ul>
7. Managing Customer Expectations	<ul style="list-style-type: none"> <li>This was made easier since the TRS Steering Committee met every 2 weeks and the project was an agenda item at each of these meetings. Both business owners were at the meeting and an update was provided.</li> <li>A weekly status report was forwarded to all sponsors and technical participants this allowed all major issues and cost to be presented to all involved in the success of the project.</li> </ul>
8. Risk Management	
9. Issue Management	
10. Monthly Status Reporting	The guidance provided by my mentor and the NCDOT IT PMO review helped in meeting the monthly status reporting.
11. Staffing Plan	The staffing plan was simplified since existing staff was being used for the project. Contract Manager was able to schedule based on available hours and estimates to complete hours.
12. Project Schedule / Milestones / Project Planning	<p>The following enabled the building of the plan and providing a working relationship for the work to be completed:</p> <ul style="list-style-type: none"> <li>The project schedule/ milestones / and overall project planning was done as a coordinated effort between the Application Manager, Contract Manager, and Application lead developers.</li> <li>Estimated work effort and available time lines was a combined effort between the contract manager and the Project Manager.</li> <li>The process was defined in how the manager work together to keep work on schedule and not create confusion by the application Team on who was directing the work.</li> </ul>
13. ETS System Design Document	<ul style="list-style-type: none"> <li>Since this was an upgrade of existing tools and not an enhancement to the applications but work to enable the applications to continue providing the same functionality, it was necessary to do a proof of concept at the same time as the project requirements were being done and the pre-requisite for the Requirements document.</li> <li>This created a reporting issue for NCDOT SAP time reporting where Execution and Build activities were forced to occur at the same time as the Planning and Design activities.</li> </ul>

### Execution & Build Phase:

Topic	Lessons Learned
1. Updated Business Case	
2. Updated Procurement plan	Procurement was handled separately and early in the project in order to have the tools in house and available during the planning phase of the project.
3. Project Approval Process	The business owners developed a process to handle the project approval for their Commissioner and State Administrator which worked well and provided timely approval.
4. Managing Sponsor Expectations	Weekly status reports were submitted weekly using the PMO template which works well for keeping the business owners, the technical teams, and management up to date on the progress and issues that came up.
5. Managing Customer Expectations	Ongoing bi-weekly Steering Committee Meetings with the business owners enabled the PM to keep the business owners informed on the project progress and helped to manage the distribution in their change request process.
6. Risk Management	Production support during the time of the project execution and build phase was more than expected. The application team worked overtime to bring the project on schedule due resources being pulled off for production support.
7. Issue Management	The project encountered vendor bugs and had to receive fixes to correct connection problems. This was escalated through NCDOT-IT management and

	the vendor to enable the correction and to meet our request timelines.
8. Monthly Status Reporting	The mentoring and PMO review process enable Monthly Status Reporting to go well.
9. Project Schedule / Milestones / Project Planning	<ul style="list-style-type: none"> <li>External connectivity issues were not realized until User Acceptance since this is the only environment that opens for external connection.</li> <li>Correcting this problem required a Vendor fix on site. This delayed the project approximately 1 month from the initial estimated deployment date.</li> <li>A change in the best approach for building the screen interface from Java 1.3 to Java 6 created additional coding to allow the tabbing to continue functioning as previous.</li> </ul>
10. Resource Management (internal & external resources)	It would have been best to have a dedicate resource responsible for ensuring quality of all the coding. This would have prevented developers from making coding changes at their own discretion.
11. Vendor Management / Vendor Performance / Vendor Deliverables	VisiBroker provided 2 fixes for our deployment. Even though VisiBroker documented our deployment of channeling communications through the internet connection, no other installation had used this option. The Vendor support set their priority and delivered the fix when needed.
12. Project Communication	PMO weekly status reporting and sharing that information with the business owners and technical teams kept everyone informed on the status of the project.
13. Change Management / Change Request	<p>Production Deployment change date was approved through the normal change request process.</p> <ul style="list-style-type: none"> <li>The approval was communicated verbally prior to sending the request and received immediate approval response via email.</li> </ul>
14. Pilot	<ul style="list-style-type: none"> <li>The TEAAS application was upgraded and used as a proof of concept to identify all the coding and processing changes that would be needed in the Execution and Build phase of the project to upgrade existing code to Java 6 and VisiBroker 8.</li> <li>The pilot identified the additional need for user to upgrade operating system to XP prior to the production deployment and to let external users know of the need to upgrade to XP by deployment.</li> <li>The early identification of these issues help the Implementation Phase go more smoothly</li> </ul>
15. Testing (test execution, verification & validation, test scripts, test cases)	<ul style="list-style-type: none"> <li>The identification of all process affected by the upgrade would have benefited both the business owner and the application team during testing.</li> <li>Both the user and the application team forgot to test the TEAAS Mile posting process. This became a post implementation incident that was corrected 1 week after production deployment.</li> <li>UAT Incident logs were maintained on a shared drive with the application team and the business owners. As the incidents were known, they were posted to the logs by the UAT teams. The application team monitored the logs and managed the incidents as soon as they were posted to the logs. This worked well and kept everyone informed on all incidents as actions were taken.</li> <li>Besides the logs phone conversation were conducted between the application team and the business UAT testers.</li> </ul>
16. Backup / DR Strategy	Previous version of DR plan was available for update which facilitated the completion of this work.

### Implementation Phase:

Topic	Lessons Learned
1. Project Approval Process	UAT approval was forwarded based on the project planned implementation date. Approval was received for production deployment without delay.
2. Managing Customer Expectations	One of the business owners felt they were left out in the planning of the Implementation. This resulted in production deployment being done at 7:00 am the morning after implementation and left no plans for a back out plan to be in place during non business hours the week end of the deployment.
3. Project Schedule / Milestones / Project Planning	The Contract Manager planned the deployment with the CAB reviews, each technical support team for each workstation and the deployment to external users. This worked well and implementation went as planned without delays and

	incidents.
4. Project Deliverables (refer to the list of deliverables in the PPM Tool that the PM said would be delivered)	All identified deliverables were created on schedule and in place prior to requesting Gate approval.
5. Project Cost vs. Budget Cost	Project cost exceeded budget cost due to Vendor bug fixes needed for external access and Java 6 changes that required modifications to how the user interface screens were built.
6. Implementation of SLA	No change to existing SLA in place.
7. Hosting Provider	NC DOT IT is the hosting provider for the TRS applications included in the
8. Production Readiness (software / hardware, process, personnel)	The production deployment plan that was prepared and communicated with all business owners and technical teams went well. The contract manager was the central contact and monitored the progress as the installation occurred over the weekend of June 4-June 9.

## Exhibit C

### ESC - Employment Services (ES) Upgrade of PCs for Local and Branch Offices

#### Initiation Phase:

Topic	Lessons Learned
Procurement Plan	<p>The ES Division initially planned on replacing all staff PCs in the field. After the bulk order was placed for 1,050 PCs, additional funds were identified to allow replacement of all PCs in the field, including those being used by partner staff located in ESC offices and accessing ESC's network. This would provide for consistency of equipment across the field and reduce support cost. A second bulk order was placed for an additional 750 PCs. Unfortunately the second order coincided with a change in vendor by ITS, from HP to Lenovo. This resulted in a delay in ESC receipt of new Lenovo hardware, which also delayed the design of a standard Lenovo software image.</p> <p>While it is understood that the procurement of additional PCs was primarily funding related, determining the total hardware requirements up front could have avoided this issue.</p> <p>ESC met the published completion schedule without critical delays, despite delays outlined above by using gap time to complete related tasks. ESC also standardized equipment in each individual office to prevent initial installation of both brands at any one location.</p> <p>Changes in vendors due to ITS contract awards continue to impact the ability of agencies to maintain consistency of hardware in offices, and increases support requirements.</p>

#### Planning & Design Phase:

Topic	Lessons Learned
Staffing	Due to staff workload and requirement for travel across the State, it was decided that a team of contract technicians would be hired via the State supplemental staffing contract to perform equipment prep and onsite installation. 5 technicians and 1 project coordinator were hired and were housed at a previously leased off site location – the Chapanoke Road facility. The project coordinator who was selected was a retired former employee of ESC and had completed IT upgrades for the ES field



	offices in the past. This proved to be of significant value and to have a very positive impact on the management of the installation team and the overall satisfaction of the offices in the field where the work was performed.
Scope	The scope of the project as initially submitted proved to be too aggressive. Moving to a new PC along with the learning curve required due to the significant application changes in the MS Office 2007 suite were time intensive for field staff, especially while dealing with the current economic environment and increased workload. It was determined early in Implementation that installing the encryption software and training staff in its use as a part of this project would increase staff time away from their job responsibilities to an unacceptable level. A management decision was made to separate the installation and training for encryption software to a subsequent follow on project, and an SR was submitted and approved to reduce the Scope of the project.

## Execute & Build Phase:

Topic	Lessons Learned
Managing Customer Expectations and Communications to Field	<p>ES senior management (Director and Deputy Director) were involved in all decision making regarding the upgraded software image being developed and installed on the new PCs. ES management was responsible for communicating all decisions to their Regional Managers, who in turn communicated to the offices within their regions. In most cases this worked well, however communications of software changes to some field offices did not appear to be as timely, or understood as clearly. ES senior management also participated in creation of the overall schedule of sites to be installed.</p> <p>All communications regarding scheduling of specific day and time of installation came from the contract project coordinator to each specific office manager, and was timely and appropriate.</p>
Training	In addition to ordering the MS Project 2007 training pamphlets, ESC created a HOD User instruction manual to be distributed to the field offices, to assist in the transition from Attachment to HOD.
Production Readiness (software / hardware, process, personnel)	<p>The first order of PCs and monitors were 1,050 each, set up with staggered delivery. The second order of 750 PCs and monitors were delivered at one time. Having adequate and secure space at the Chapanoke site to receive, store, and distribute the significant amounts of equipment; and quick access to equipment for configuration and burn in proved to be a key to the success of this project.</p> <p>During E&amp;B, the team discussed the possibility of upgrading the level of the licensed Attachmate software, as it was significantly down-level. A decision was made by ES management to move from Attachmate on the desktop to use of Host on Demand mainframe emulation application via the web url. The primary driver in this decision was the cost of upgrading the software vs. use of the free HOD application. ES field staff working from other, non-ESC locations had used this application for several years successfully; however, this was a new way of accessing the mainframe for most of the ES staff in the field. The transition to HOD proved to be more of a challenge for staff than anticipated, as the change eliminated some shortcuts and macros they had been used to using. In addition, the change was made fairly close to beginning Implementation, and allowed insufficient time for of ES support techs to get up to speed.</p> <p>It was recognized that the move to MS Office 2007 was going to require some type of training materials for the field offices. The applications included in 2007 have a very different look and feel from what was being currently used. The PMO consulted with the EPMO and identified a training pamphlet that appeared to be a cheaper alternative to bringing in onsite training for each office. Samples were ordered and reviewed by ES management, and a decision was made to order copies of the Word, Excel and Power Point pamphlets.</p>

## Implementation Phase:

Topic	Lessons Learned
Scheduling and Delivery	<p>A schedule of all 90 sites was put together immediately after the piloting was completed and was followed with few deviations. The schedule was published by the PMO each week, showing those sites completed and any updates to remaining schedule. This was key in providing good communications to the locations involved in this project.</p> <p>Start time in each office was negotiated directly with the office manager by the Project Coordinator. Offices typically wanted the team on site as early as possible, which helped keep the installations on schedule.</p> <p>As a part of the contract, the vendor was responsible for leasing the trucks which were used to load and deliver the new PCs to each location, and to bring back the old equipment to the Central Office for surplus. Having the contract team bring the surplus equipment back from each installation saved ESC the cost of having to send Support Services across the state to pick up and surplus all the old equipment.</p>
Training	The training documentation was well received by the field staff and we had no complaints or negative feedback regarding staff transition to MS Office 2007.

## Exhibit D

### SBoE - VBT – Verified Ballot Transaction

#### Initiation Phase:

Topic	Lessons Learned
1. Project Approval Process	Ensure communication plan is understood by all.

#### Planning & Design Phase:

Topic	Lessons Learned
1. Updated Budget	Understand of Change Requests for Budget modifications.
2. Issue Management	Need to do a better job of keeping up with issues. Addressed with PM's
3. Monthly Status Reporting	Need to do a better job of keeping up with status reports. Addressed with PM's
4. Project Schedule / Milestones / Project Planning	Be sure to be able to match PPM schedules/milestones and tasks with working project files. Terminology and exact tasks/milestones may differ between what is reported and what is acted on within the office.

#### Execution & Build Phase:

Topic	Lessons Learned
1. Monthly Status Reporting	Project Status Report Schedule very useful. Be sure to report for calendar month and not project month.
2. Project Schedule / Milestones / Project Planning	Be sure to be able to match PPM schedules/milestones and tasks with working project files. Terminology and exact tasks/milestones may differ between what is reported and what is acted on within the office

#### Implementation Phase:

Topic	Lessons Learned
1. Monthly Status Reporting	Project Status Report Schedule very useful. Be sure to report for calendar month

	and not project month.
2. Project Deliverables (refer to the list of deliverables in the PPM Tool that the PM said would be delivered)	Be sure to be able to match PPM deliverables with working project files. Terminology and exact deliverables may differ between what is reported and what is acted on within the office that can lead to confusing status reports.
3. Change Management / Change Request	Learned, if in doubt, call your PMA for advice.

## Exhibit F

### ITS - E25K Retirement

## Project Highlights

### Significant Project Successes

Project Success
Received great support from upper mgmt at ITS (Sharon Hayes, Glenn Poplawski and Robert Pietras). They kept Senior Mgmt at Commerce up to speed and also kept the project in motion.
John Rutigliano did a good job representing Commerce. He ran the project well by involving the right groups to get the work done.
Once the migration got rolling, ITS worked hard to tackle issues and to meet the project needs.
John Correllus was able to use his contacts at SAS to get the right resources assigned, to crash the schedule. The vendor stepped up to the migration, applied the right resources and stayed motivated to meet Commerce's timeline.

### Project Shortcomings and Solutions

Project Shortcoming	Recommended Solutions
ITS Business Decision to close down the SAS shared service environment came to Commerce without much warning. The decision was based on funding without researching in to what it would take to migrate the customers.	More research needs to be done to analyze customer impact before Business Decisions are made.
Budget Impact: It took months to make the determination on how this migration effort will be paid for. ITS did step up to plate to cover the cost. Migration cost was about \$37K.	When a Business Decision is made, complete analysis needs to be made on what the cost impact would be to the agencies and how will it be paid for.
Commerce was not included as a stakeholder for first 2 weeks of the project. Schedules were published before consulting Commerce. Original schedule did not map with Commerce schedule.	Need to engage Customer from the very beginning and get their buy in at every point.
Architectural documents are not very user friendly. Commerce was unable to identify what is required to be provided.	A&E team needs to publish some perfect examples of Technical Architecture and System Design (TASD) document, so agencies can clearly understand what is expected from them.

Project Shortcoming	Recommended Solutions
It took about 3 months to get quotes from ITS. As a result Commerce did not know what the overall cost of the new solution was going to be for a long time.	Quoting process needs to be refined, so we can present an estimate to the Customer fairly quickly.
ITS let warranty lapse on some of the servers.	Configuration Management Tool could be leveraged to track warranty information.
ITS gets their rate changes approved by OSBM and agencies see a charge increase without much notification.	Co-ordination is needed with agencies ahead to time, so they can budget for the rate increases.
Commerce feels that they are paying more for ITS services but getting less in return. For example: they were forced to use VM solution. Commerce had a physical machine 4 core, 16G for \$450. The VM for web server 2 core, 16G resulted in \$600.	There needs to be clarity on cost structure. If ITS recommends VM solution over physical machines, we need to provide clear justifications to the customer.
Commerce was forced to invest in the additional cost for Reverse Web Proxy even though it was not important to their stakeholders.	Architecture and Security should make appropriate recommendations to agencies, but it should be left to the agency to make a decision.
Commerce was forced to use zLinux as RWP in front of their Web Server. But the Webgate was not compatible with zLinux.	Architecture reviews could have caught this mistake and avoided delay in the project.
There was some delay in resolving some issues during implementation. Commerce felt that they did not do a good job in describing how each of the different components within their application works.	It could have been very helpful if the agency provides an overall big picture of how the different components within the application work. It can assist ITS to debug any issues during implementation.
There is no clear understanding of what each group within ITS does.	Roles and responsibilities of each groups within ITS should be clearly defined and made available to agencies.
Commerce got hammered for things that were out of their control. ITS did not take responsibility for Tomcat server. Certificate. Commerce was asked to manage the Certificate on Tomcat on their own, but was not given administrative rights to manage the certificate.	Opportunity to streamline processes.
Commerce faced some issues with port openings – most port openings did not occur smoothly, some opened ok, some took 2 nights to take effect. Commerce didn't know which port or port ranges they would need to have opened.	Opportunity to streamline processes. It would help if we make it clear upfront that no ports are opened as a default. Identify common ports or port ranges that should be considered for opening for certain types of servers.
More importance was given to governance than customer requirements.	ITS needs to spend time with each agency to understand what the agency is trying to accomplish and how technology can help.
Commerce had to face some internal ITS squabbling which could have been avoided.	There should be better communication within teams at ITS.

## Exhibit G

### ITS - Project Management/Resource Management Tool

#### Initiation Phase:

Topic	Lessons Learned
1. Project Approval Process	Gate approval takes way too long. Start real early.

#### Planning & Design Phase:

Topic	Lessons Learned
1. Updated Procurement Plan	New procurement plan template is much improved over the old one.
2. Monthly Status Reporting	Very time consuming for small projects such as a SaaS subscription purchase.
3. ETS System Design Document	Not valid for SaaS implementation. Better way to address these questions needed.

#### Execution & Build Phase:

Topic	Lessons Learned
1. Hosting Provider (setting up environments)	SaaS is great, none needed.

#### Implementation Phase:

Topic	Lessons Learned
1. Implementation of Backup / DR	Great. Not needed for SaaS subscription.
2. Implementation of SLA	Great. Not needed for SaaS subscription
3. Hosting Provider	Great. Not needed for SaaS subscription
4. Training (user, admin, etc)	Train the trainer approach worked well.

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